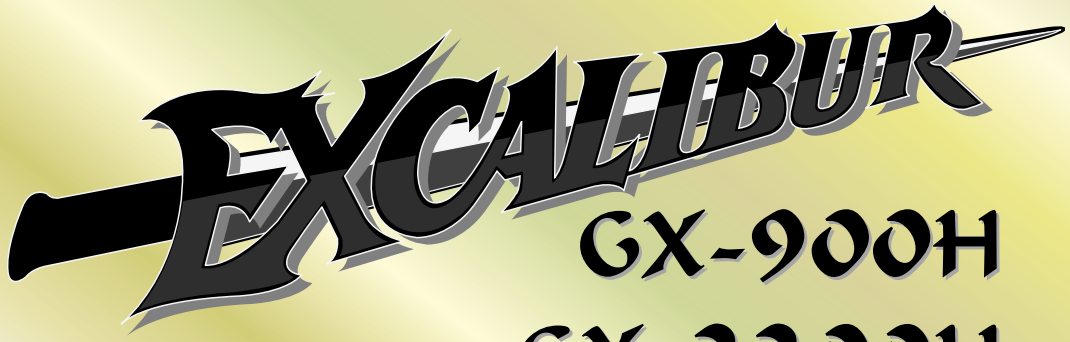
Owner's Manual

for the



GX-900H

GX-2200H

Guitar Amplifiers

MUSICIAN
MADE IN THE
U.S.A.

by

CRATE

Congratulations!

You are now in possession of one of the finest sounding, hardest-hitting amplifiers you could ever hook your axe to, the Crate GX-900H or GX-2200H head units. Part of our exciting new Excalibur Series, these amplifiers share the spotlight with no one. Except you.

Like all Crate products, your Excalibur guitar amplifier is Musician Made in the U.S.A., using only the best components. Extensive hands-on evaluation by real-life musicians helped shape the design of this amplifier into what it is: a sonic powerhouse capable of producing incredible tones and volume levels you just can't get from any stock amplifier in its class.

Extensive testing at many stages in its production, including a final "audition" by a skilled musician, insures you that your Excalibur amplifier is the best it can be. In order to get the best possible performance, please read this manual before you use the amplifier.

And ***thank you*** for choosing CRATE.

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CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER.
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

ATTENTION
RISQUE D'ELECTROCUTION
NE PAS OUVRIR

ATTENTION: POUR REDUIRE D'ELECTROCUTION NE PAS
ENLEVER LE COUVERCLE. AUCUNE PIECE INTERNE N'EST REPRABLE
PAR L'UTILISATEUR. POUR TOUTE REPARATION, S'ADRESSER A UN
TECHNICIEN QUALIFIE.

VORSICHT
ELEKTRISCHE SCHLAGGEFAHR
NICHT OFFENEN

VORSICHT: ZUR MINIMIERUNG ELEKTRISCHER SCHLAGGEFAHR NICHT
DEN DECKEL ABENHMEN. INTERNE TEILE KONNEN NICHT VOM
BENUTZER GEWARTET WERDEN. DIE WARTUNG IS QUALIFIZIERTEM
WARTUNGSPERSONAL ZU UBERLASSEN.

THIS EQUIPMENT HAS BEEN DESIGNED AND ENGINEERED TO PROVIDE SAFE AND RELIABLE OPERATION. IN ORDER TO PROLONG THE LIFE OF THE UNIT AND PREVENT ACCIDENTAL DAMAGES OR INJURY, PLEASE FOLLOW THESE PRECAUTIONARY GUIDELINES:

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT OPEN CHASSIS; DO NOT DEFEAT OR REMOVE THE GROUND PIN OF THE POWER CORD; CONNECT ONLY TO A PROPERLY GROUNDED AC POWER OUTLET.

WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION: IF YOU USE AUDIO AMPLIFIERS PROFESSIONALLY OR IN WORK RELATED SITUATIONS AS AN EMPLOYEE, THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) HAS SPECIFIED REGULATIONS CONCERNING PROLONGED EXPOSURE TO HIGH SOUND PRESSURE LEVELS. PLEASE REFER TO THE CODE OF FEDERAL REGULATIONS DOCUMENT 29CFR1910 FOR ADDITIONAL INFORMATION.

EXPLANATION OF GRAPHICAL SYMBOLS:
= "DANGEROUS VOLTAGE" "DANGER HAUTE TENSION" "GEFAHLICHE SPANNUNG"
= "IT IS NECESSARY FOR THE USER TO REFER TO THE INSTRUCTION MANUAL" "REFERREZ-VOUS AU MANUAL D'UTILISATION" "UNBEDINGT IN DER BEDIENUNGSANLEITUNG NACHSCHLAGEN"

Introduction:

Crate's new GX-900H and GX-2200H are feature-packed, professional-strength powerhouses which can deliver incredible sounds and outrageous volume levels. Rugged construction, reliable American craftsmanship and two solid state channels of pure, guitar power are some of trademarks the these new amplifiers: amplifiers good enough to wear the Excalibur badge.

The clean channel is smooth and pure, even at high volume levels. The distortion channel offers a wide range of sounds from slightly crunched to screaming mad, with two separate gain controls – it's like getting a third channel free. Both channels feature separate reverb level controls and three bands of equalization for total tone control. The clean channel also sports a bright switch for added flexibility. The front-panel footswitch offers "remote control" of channel selection and the dual gain controls, and the rear-panel effects loop allows connection of your favorite effects with minimum noise and maximum performance.

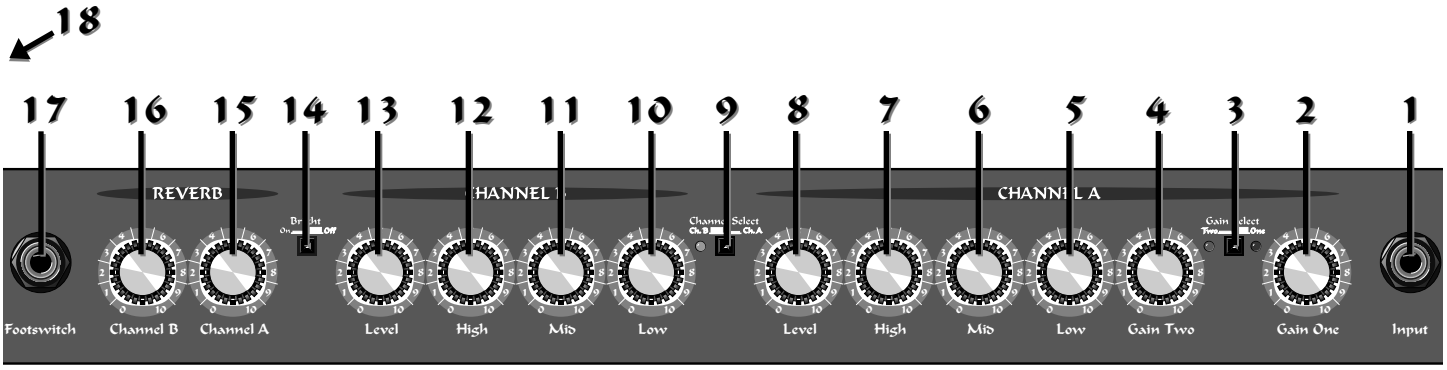
The GX-900H is capable of pumping 90 watts of sonic bliss into loads as low as 2 ohms; the GX-2200H, 220 watts into 2 ohms. Be warned: Crate's Excalibur amplifiers are about as serious a weapon as you can wield.

Features:

Here's a quick overview of some of the GX-900H/GX-2200H's features and controls. Additional information can be found on the pages indicated.

- Solid state circuitry for reliable service and incredible tones.
- Two completely separate channels with independent level, tone and reverb controls (page 4).
- Two gain controls for the distortion channel, accessible by a front-panel switch or footswitch (page 4). (Consider it a "bonus" channel: three channels for the price of two!)
- Footswitch control for channel selection and the distortion channel's dual gains by using a two-button footswitch (such as Crate's CFP-2) (page 4).
- Effects loop for noiseless use of your favorite processors and effects (page 5).
- Durable black Tolex covering and silver-colored logo and hardware for high cosmetic appeal and stage presence.
- Musician made in the U.S.A.
- Crate's available, exclusive 5-year warranty (U.S. only - see your dealer in other areas for warranty details). Activate it by returning the enclosed survey card!

The Front Panel:



1. INPUT: Accepts the mono 1/4" plug of the signal cable from your guitar or wireless receiver.

CHANNEL A, the distortion channel:

2. GAIN ONE: Sets the signal gain for the distortion channel, thus controlling the amount of distortion. Serves as the "low to medium distortion control;" accessible through the gain select switch (#3) or a footswitch. Gives you sounds from nearly clean to really crunchy.

3. GAIN SELECT: Switches between the two gain controls (#2, 4). Switch in, gain two is selected (gain one is disabled) – both LEDs light. Switch out, gain one is selected – only the LED under the word "one" lights. When a footswitch is used, this switch doesn't do anything, but the LEDs work the same.

4. GAIN TWO: Also sets the gain for the distortion channel. Serves as the "low to high distortion control," also accessible through the gain select switch (#3) or a footswitch. Gives you sounds from nearly clean to screaming dirty. Acts as a third channel: set gain one for a rhythm crunch, set gain two for screaming leads. Be more creative, more expressive; have more fun!

5. LOW: Sets the level of the lower frequencies for the distortion channel. Offers a range of 18 dB at 100 Hz.

6. MID: Sets the level of the middle frequencies for the distortion channel. Offers a range of 10 dB at 1 kHz.

7. HIGH: Sets the level of the upper frequencies for the distortion channel. Offers a range of 17 dB at 6 kHz

8. LEVEL: Controls the overall volume level for the distortion channel.

9. CHANNEL SELECT: Switches between the clean channel (switch out, LED on) and the distortion channel (switch in, LED off). When a footswitch is used, this switch doesn't do anything.

CHANNEL B, the clean channel:

10. LOW: Sets the level of the lower frequencies for the clean channel. Offers a range of 25 dB at 70 Hz. Lets you fatten up the bottom end of your sound.

11. MID: Sets the level of the middle frequencies for the clean channel. Offers a range of 14 dB at 800 Hz. Lets you create sounds from "in the distance" to "in your face."

12. HIGH: Sets the level of the upper frequencies for the clean channel. Offers a range of 29 dB at 10 kHz. Lets you add brilliance and crystal clear highs to your sound.

13. LEVEL: Controls the overall volume level for the clean channel.

14. BRIGHT: Boosts the upper frequencies when pressed in. Adds a brightness to the sound. Off in the out position.

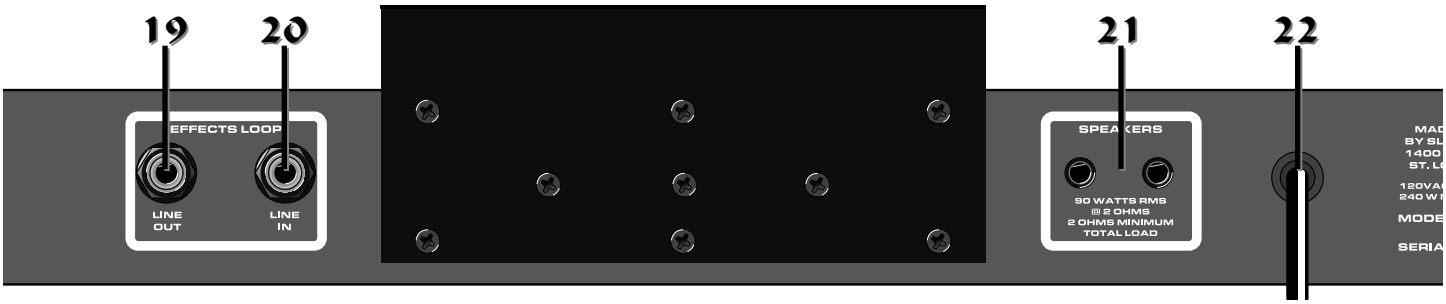
15. REVERB, CHANNEL A: Sets the amount of reverb effect applied to channel A. Turned all the way to the left ("0") the signal is "dry" (no reverb). Turning it towards the right increases the wetness (amount of reverb) of the signal.

16. REVERB, CHANNEL B: Sets the amount of reverb effect applied to channel B. Turned all the way to the left ("0") the signal is "dry" (no reverb). Turning it towards the right increases the wetness (amount of reverb) of the signal.

17. FOOTSWITCH: Accepts the stereo 1/4" plug from a two-button footswitch (such as Crate's CFP-2) for remote channel switching and switching between gain one and gain two on channel A. Ring controls channel selection, tip controls the gains. With a footswitch plugged in, the front-panel switches #3 and #9 don't do anything.

18. POWER: (not shown): Turns the amp on and off, "on" being the UP position. The ON LED next to the Excalibur logo lights when the amp is turned on.

The Rear Panel:



19. EFFECTS LOOP LINE OUT: Sends a signal out to your effects devices or signal processors. Lets you add effects, with lowest noise. Uses a shielded signal cable with mono 1/4" plugs. Also doubles as a source for a post-EQ, pre-amp signal to send your signal to a mixing board, recorder, powered monitor or external amplifier.

20. EFFECTS LOOP LINE IN: Receives the signal from your effects or processors. Uses a shielded cable with mono 1/4" plugs. Also doubles as a direct feed to the power amp section, bypassing the input and preamp stages. Useful for "slaving" a pair of amps together.

21. SPEAKERS: Connects the amp to your speaker cabinet(s). Uses speaker cables with mono 1/4" plugs. These jacks are wired in parallel. Make sure that your speaker combination never totals less than 2 ohms! Use the chart below to help determine parallel loads. If in doubt, ask your dealer.

CAB IMP	# CABS	TOTAL IMP
4 ohms	2	2 ohms
8 ohms	2	4 ohms
8 ohms	4	2 ohms
16 ohms	2	8 ohms
16 ohms	4	4 ohms
16 ohms	8	2 ohms

22. POWER CORD: Connects the amp to a grounded AC power outlet. ***Use only a grounded outlet! DO NOT defeat the ground prong of the cord!*** If the amplifier is used outside of the United States, see the area's Crate dealer for the proper power cord or consult a local professional electrician.

Some Suggested Settings:

Please Note: *These settings were obtained by the help of several gutiarists without earplugs, using both "Strat-style" and "Les Paul-style" guitars. The amp was connected to a single 4-12 slant front cabinet. These are only suggestions and should be used as starting points to help you find the sounds you need.*

"Glass should be this clean!" **"Go wash your hands."** ***(dirty blues)***

"Wipe your feet!" ***(jazzy clean)*** **"You need a bath!"** ***(grungy)***

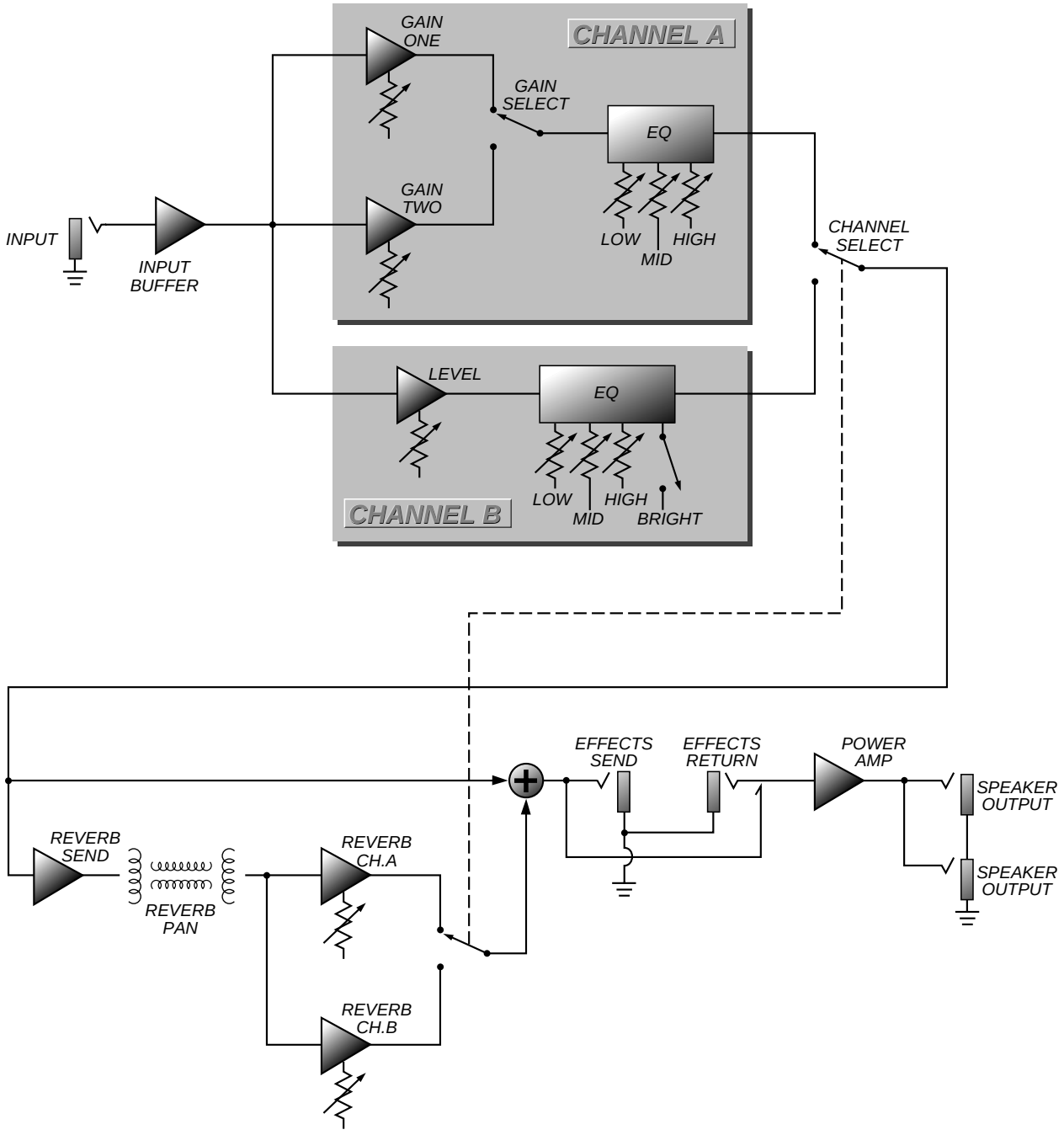
The gray lines show what worked best for us with a Les Paul style guitar; the black lines worked best with a Strat-style guitar.

"Led-Aero-Black Sab-Drix" ***(classic hard rock)***

"Shred it don't forget it." ***(heavy metal)***

"Meet me in the Pit!" ***(moshin')***

System Block Diagram:



EXCALIBUR GX-900H/GX-2200H Guitar Amplifiers by CRATE

Technical Specifications:

Maximum Input Signal Level Accepted		8 volts peak to peak
Input Power Requirements		GX-900H: 120VAC, 60Hz, 240 watts max. GX-2200H: 120VAC, 60Hz, 500 watts max.
Input Impedance		470 k ohms
Total System Gain		Channel B: 54 dB @ 1 kHz, all controls at "10", Bright off Channel A: Gain One: 69 dB @ 1 kHz, all controls at "10" Gain Two: 86 dB @ 1 kHz, all controls at "10"
Output Power Rating		GX-900H: 90 watts RMS @ 5% THD, 2 ohm load GX-2200H: 220 watts RMS @ 5% THD, 2 ohm load
Channel B	**Low**	25 dB range @ 70 Hz
	Mid	14 dB range @ 800 Hz
	High	29 dB range @ 10 kHz
	Bright	7 dB boost @ 10 kHz
Channel A	**Low**	18 dB range @ 100 Hz
	Mid	10 dB range @ 1 kHz
	High	17 dB range @ 6 kHz
Fuse Rating and Type	GX-900H:	2A Normal Blo, 250V Internal, 100VAC-120VAC; 1A Slo Blo, 250V Internal, 230 VAC
	GX-2200H:	5A Normal Blo, 250V Internal, 100VAC-120VAC; 3A Normal Blo, 250V Internal, 230VAC
Cabinet Size and Weight:		11.63" H x 30.75" W x 11" D 35 lbs.

The GX-900H and GX-2200H are covered with a durable black Tolex material; wipe them clean with a damp lint-free cloth to remove dirt and road film. Never spray cleaning agents directly onto the cabinets, and stay away from abrasive cleaners which could damage their finish.

GX-900H
GX-2200H
Guitar Amplifiers

MUSICIAN MADE IN THE U.S.A. by CRATE

CRATE continually develops new products, as well as improves existing ones. For this reason, specifications and information in this manual are subject to change without notice.

recyclable

CRATE/SLM ELECTRONICS, A DIVISION OF ST. LOUIS MUSIC, 1400 FERGUSON AVENUE, ST. LOUIS, MO 63133 **47-590-01 • 07-95**